



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
300 W. Preston Street, Suite 202, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

Office of Preparedness & Response

Sherry Adams, R.N., C.P.M, Director

Isaac P. Ajit, M.D., M.P.H., Deputy Director

July 29, 2011

Public Health & Emergency Preparedness Bulletin: # 2011:29 **Reporting for the week ending 07/23/11 (MMWR Week #29)**

CURRENT HOMELAND SECURITY THREAT LEVELS

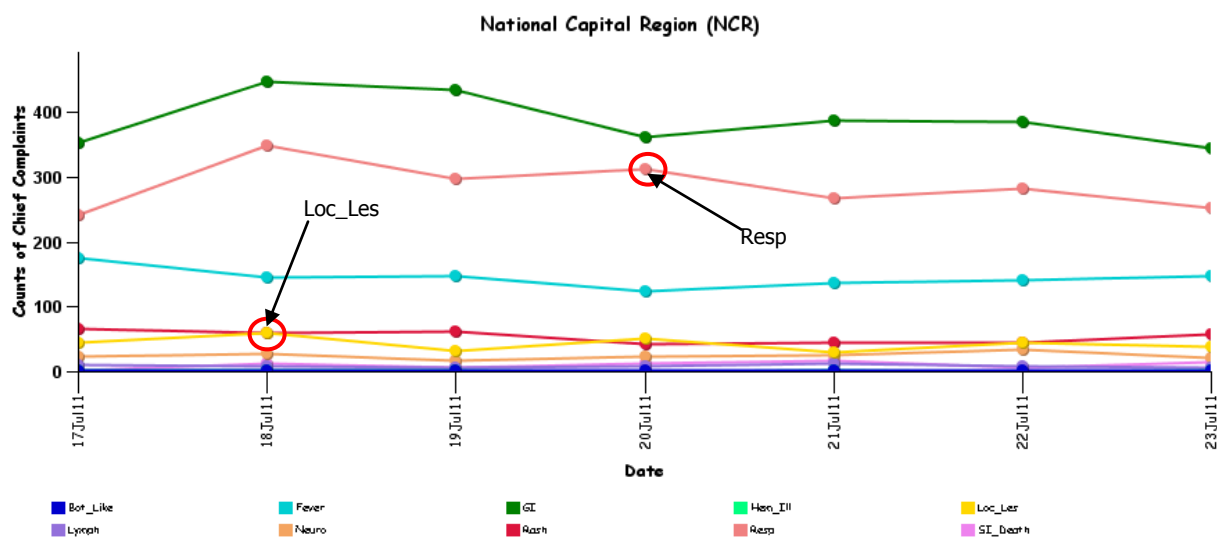
National: No Active Alerts
Maryland: Level One (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

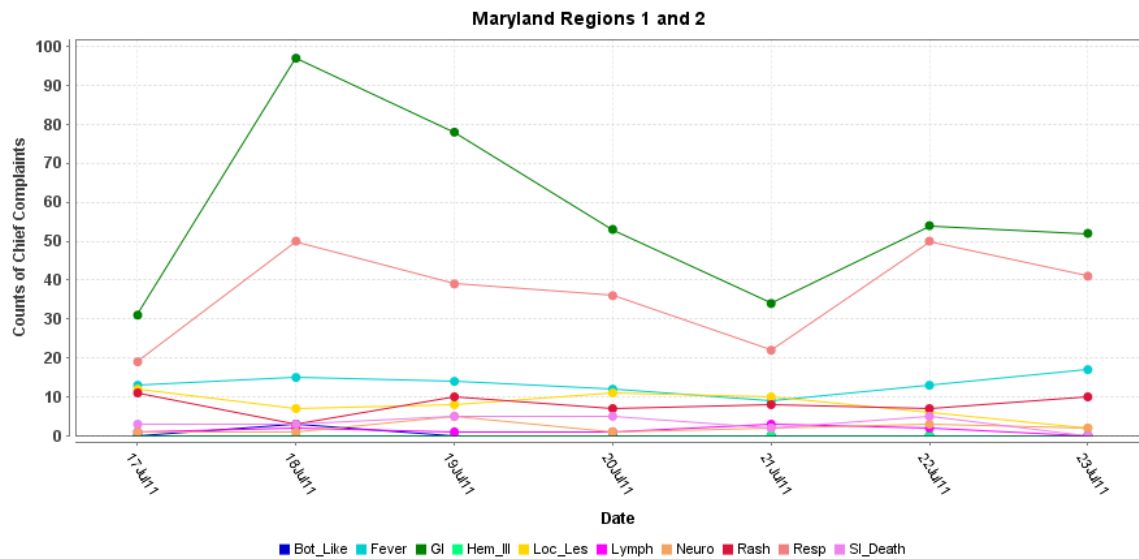
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

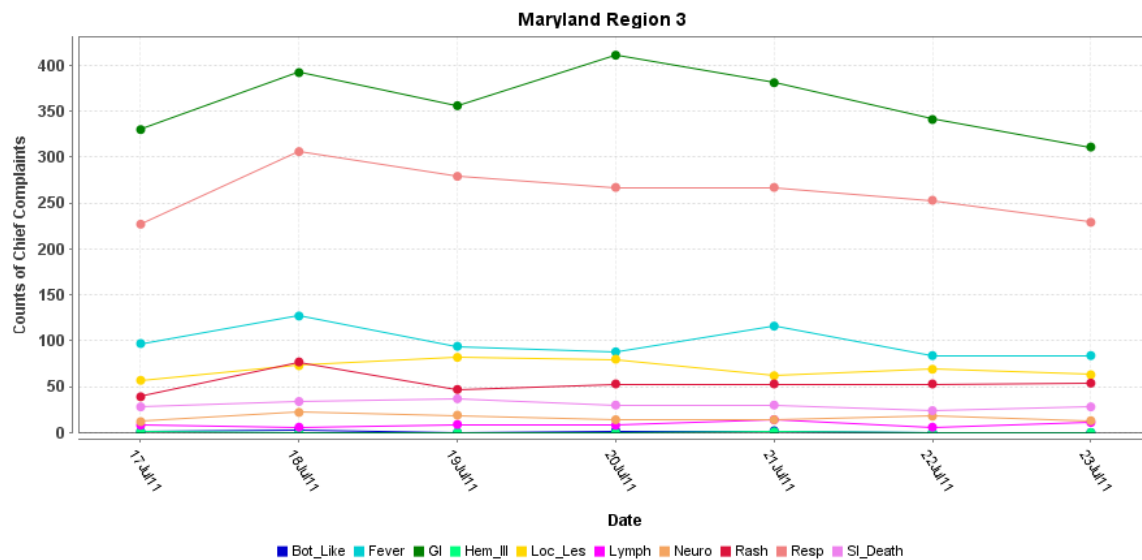


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

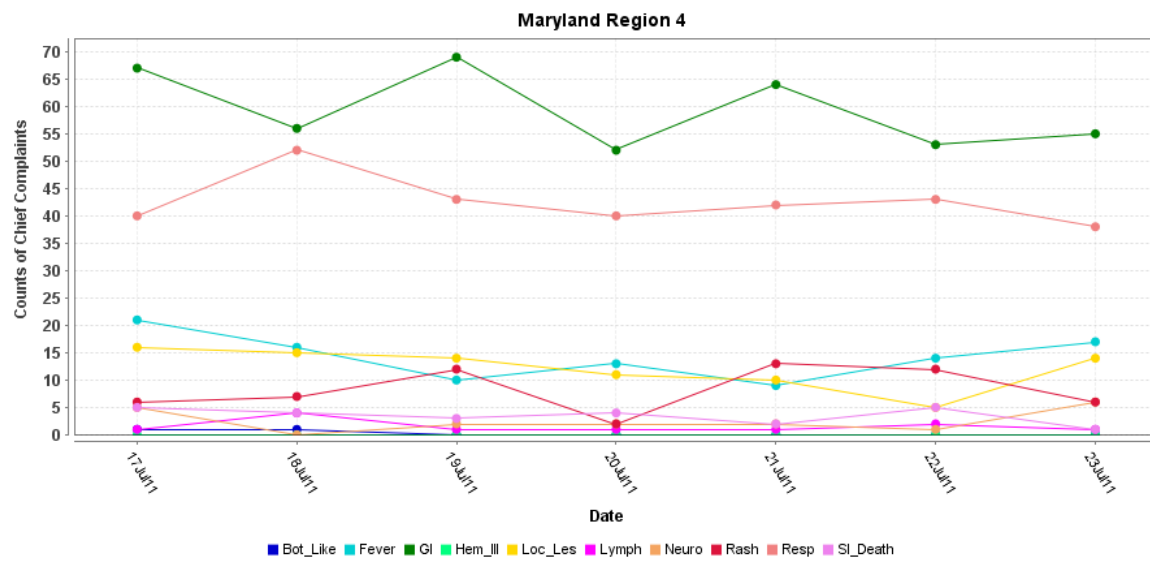
MARYLAND ESSENCE:



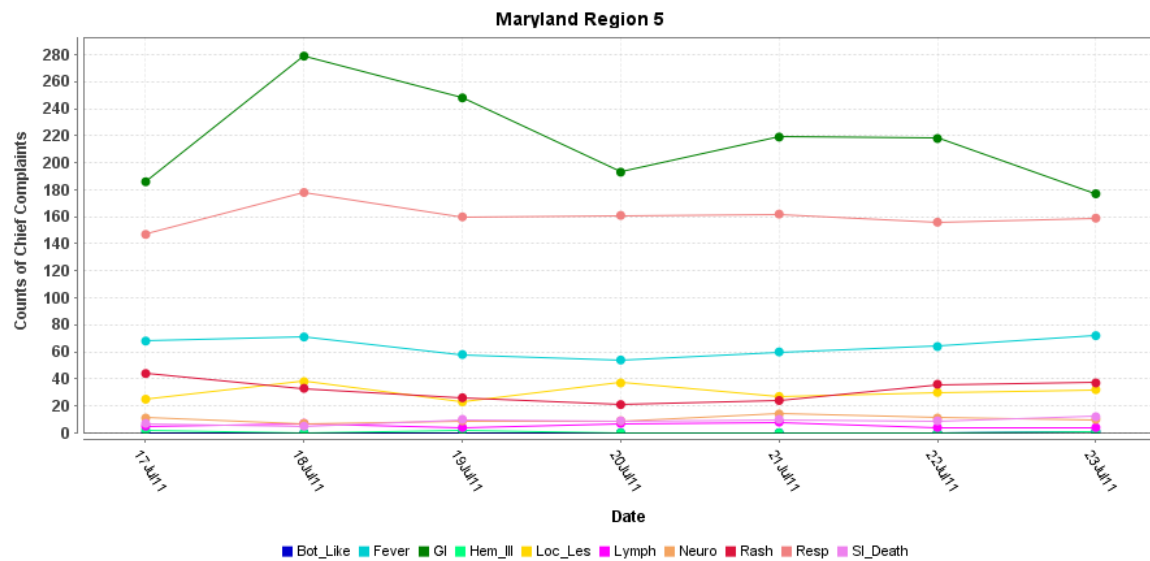
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

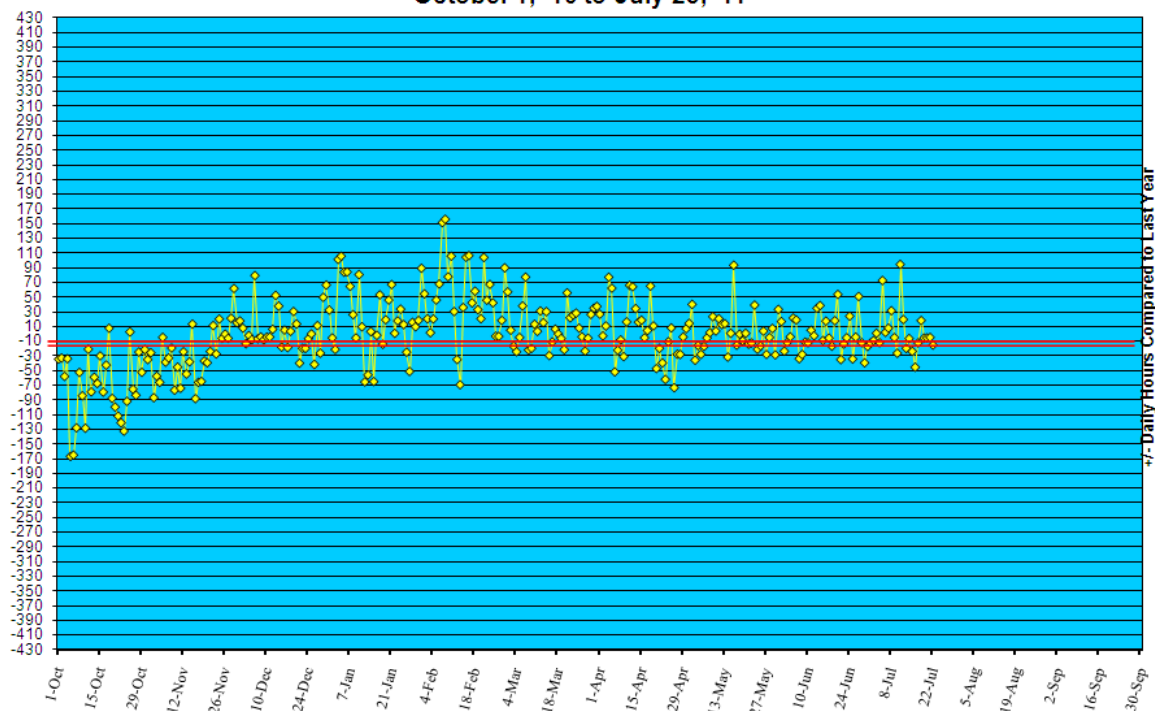


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to July 23, '11



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in June 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (July 17 – July 23, 2011):	8	0
Prior week (July 10 – July 16, 2011):	13	0
Week#29, 2010 (July 18 – July 24, 2010):	17	0

6 outbreaks were reported to DHMH during MMWR week 29 (July 17-23, 2011).

5 Foodborne outbreaks

- 1 outbreak of GASTROENTERITIS in an Assisted Living Facility
- 1 outbreak of GASTROENTERITIS associated with a Camp
- 2 outbreaks of GASTROENTERITIS/FOODBORNE associated with Restaurants
- 1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Facility

1 Respiratory illness outbreak

- 1 outbreak of PNEUMONIA in a Nursing Home

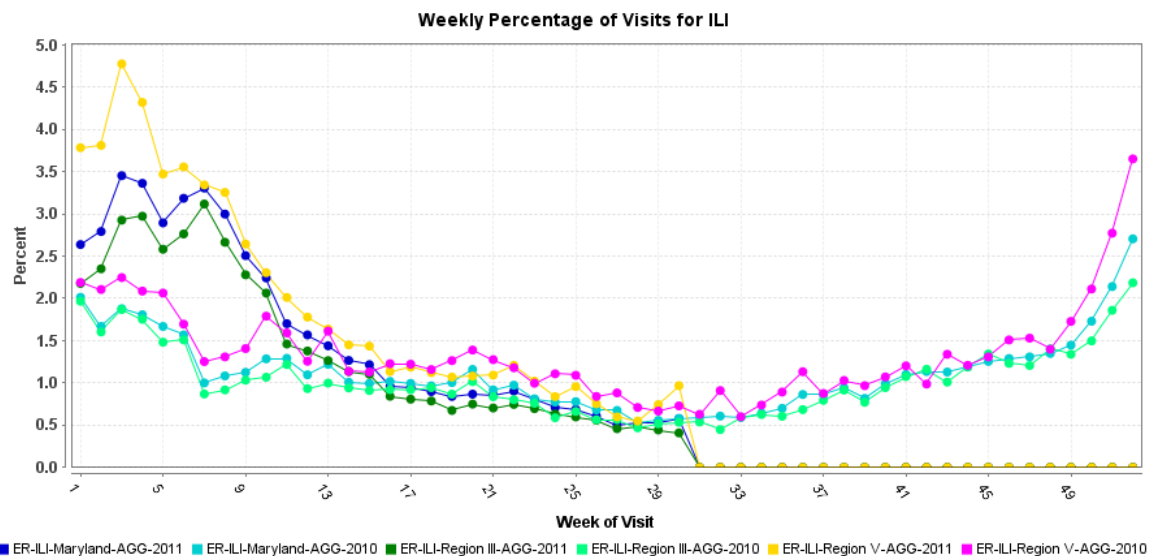
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

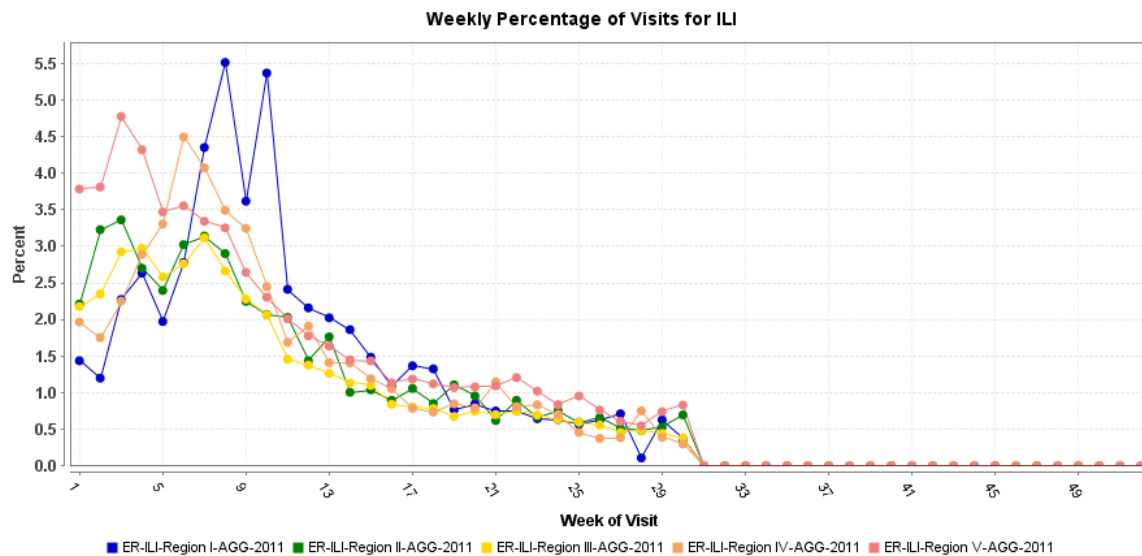
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



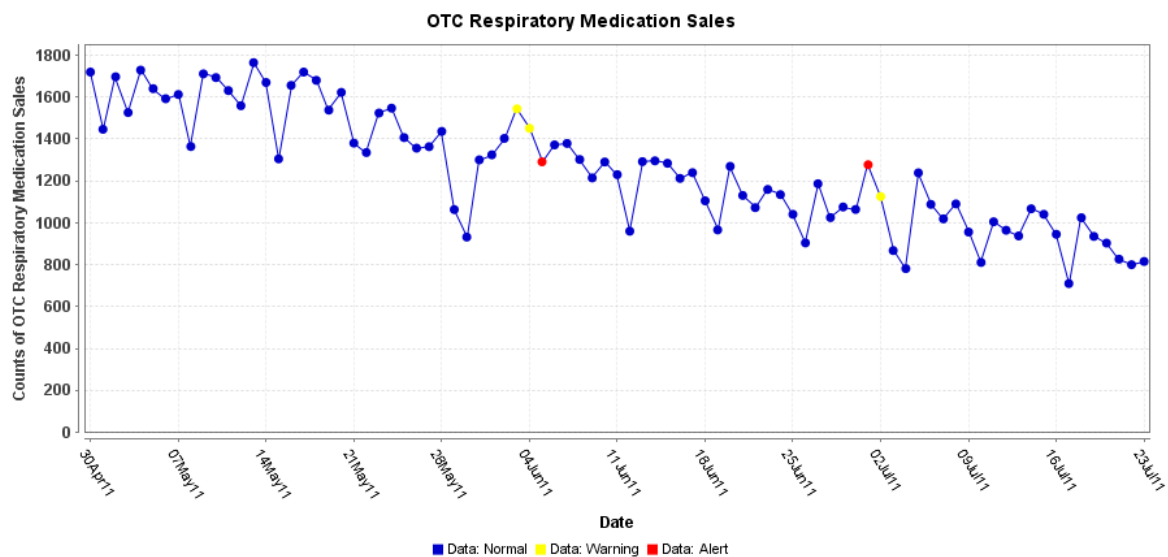
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

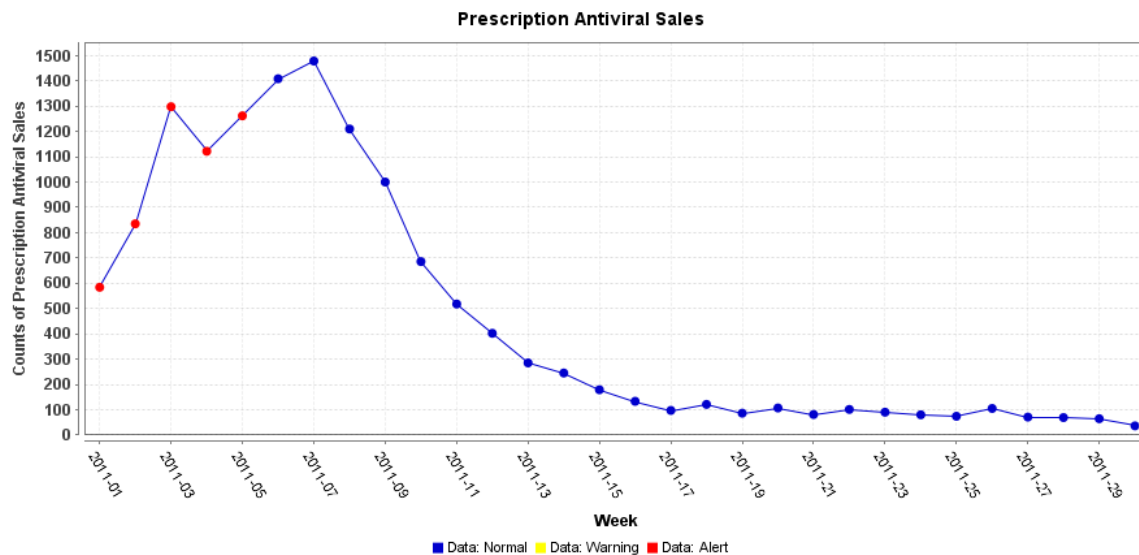
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of June 22, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 562, of which 329 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS (NORTH CAROLINA, SOUTH CAROLINA): 18 July 2011, The FDA is working with officials in North Carolina and South Carolina to investigate an outbreak of campylobacteriosis in 3 people who consumed raw milk from Tucker Adkins Dairy in York, South Carolina. The 3 confirmed cases and another 5 probable cases are from 3 different households and each case reports that prior to becoming ill they consumed raw milk that was obtained from Tucker Adkins Dairy on June 14, 2011. The onset of illness in these cases occurred in mid June 2011. One person was hospitalized. The FDA recommends that consumers only drink pasteurized milk. Raw milk is unpasteurized milk from hoofed mammals, such as cows, sheep, or goats. Raw milk may contain a wide variety of harmful bacteria including *Salmonella*, *E. coli* O157:H7, *Listeria*, *Campylobacter*, and *Brucella* that may cause illness and possibly death. Public health authorities, including FDA and the CDC, have expressed concerns about the hazards of drinking raw milk for decades. Most healthy individuals recover quickly from illness caused by raw milk. However, some people may have more severe illness, and the harmful bacteria in raw milk can be especially dangerous for pregnant women, the elderly, infants, young children, and people with weakened immune systems. Since 1987, the FDA has required all milk packaged for human consumption to be pasteurized before being delivered for introduction into interstate commerce. Pasteurization, a process that heats milk to a specific temperature for a set period of time, kills bacteria responsible for diseases, such as listeriosis, salmonellosis, campylobacteriosis, typhoid fever, tuberculosis, diphtheria, and brucellosis. FDA's pasteurization requirement also applies to other milk products, with the exception of a few aged cheeses. From 1998 to 2008, 85 outbreaks of human infections resulting from consumption of raw milk were reported to CDC. These outbreaks included a total of 1614 reported illnesses, 187 hospitalizations, and 2 deaths. Because not all cases of foodborne illness are recognized and reported, the actual number of illnesses associated with raw milk likely is greater. Proponents of drinking raw milk often claim that raw milk is more nutritious than pasteurized milk and that raw milk is inherently antimicrobial, thus making pasteurization unnecessary. There is no meaningful nutritional difference between pasteurized and raw milk, and raw milk does not contain compounds that will kill harmful bacteria. Most people who get

campylobacteriosis recover completely within 2-5 days, although sometimes recovery can take up to 10 days. Rarely, *Campylobacter* infection results in long-term consequences. Some people develop arthritis. Others may develop a rare disease called Guillain-Barre syndrome that affects the nerves of the body beginning several weeks after the diarrheal illness. This occurs when a person's immune system is "triggered" to attack the body's own nerves resulting in paralysis that lasts several weeks and usually requires intensive care. It is estimated that approximately 1 in every 1000 reported cases of campylobacteriosis leads to Guillain-Barre syndrome. As many as 40 percent of Guillain-Barre syndrome cases in the USA may be triggered by campylobacteriosis. Although *Campylobacter* infection does not commonly cause death, it has been estimated that approximately 124 persons with the infection die each year. The raw milk associated with the illness was in 1-gallon containers and was distributed in North Carolina by a courier. It is unknown whether the raw milk may have been distributed in other states. Raw milk is sometimes distributed in North Carolina via independent or informal "milk clubs," though it may be distributed through other means as well. The cases in this investigation report receiving raw milk twice a month from a courier who delivered the milk from South Carolina. While it is believed the full distribution by this courier is limited, this information is not fully understood at this time. FDA is investigating the problem in collaboration with the North Carolina Division of Public Health and the North Carolina Department of Agriculture and Consumer Services and the South Carolina Department of Health and Environmental Control. The investigation is ongoing. The FDA is also working with state authorities to take appropriate action to address any product that may be remaining on the market. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

LA CROSSE ENCEPHALITIS (NORTH CAROLINA): 23 July 2011, A Macon County child is North Carolina's 1st confirmed case of La Crosse viral encephalitis this season. State health officials say the child contracted the illness from a mosquito bite. Symptoms of the ailment can include fever, headache and nausea. Victims of a severe case can experience convulsions or they may even fall into a coma. Officials didn't identify the child who caught the virus, but say he or she is recovering. La Crosse encephalitis is largely found in western North Carolina, and is the state's most common mosquito-borne disease. Last year [2010], North Carolina recorded 21 cases. Although it's rarely fatal, a Swain County child died from the illness in 2009. (Viral encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

LEPTOSPIROSIS (DENMARK): 21 July 2011, Two men from the Copenhagen area have been diagnosed with leptospirosis, one of whom, a 62-year-old man, has died. The infection has probably occurred through contact with sewer water in cleanup of flooded basements. After a heavy rainfall in Copenhagen on 2 Jul 2011, Statens Serum Institute became aware of 2 cases of leptospirosis or Weil's disease among men living in the Copenhagen area. In both cases these are people who have cleaned up the basement after rain. For cleanup, these people probably came into contact with sewer water that was contaminated with rat urine, which may contain the bacteria that cause leptospirosis. Leptospirosis is a rare disease caused by infection with bacteria of the genus *Leptospira*. These bacteria are found in many animals, but in Denmark it is usually bacteria from rats that cause the disease. Infected animals excrete the bacteria in large numbers in the urine. Transmission to humans occurs either through direct contact with urine from infected animals or indirectly, through contact with freshwater that has been contaminated with infected urine. In connection with clearing and cleaning the basement, where there is standing water after a flood, it is important to protect yourself by using personal protective equipment, such as boots and rubber gloves. After work is completed, a bath should be taken, dry thoroughly with a clean towel, and put on clean clothes. The clothes you have worn during cleanup work should be placed in the washing machine and washed at as high a temperature as possible -- preferably above 80 deg C [176 deg F]. Alternatively, discard clothing in a sealed black plastic bag and disposed of as ordinary waste. The initial symptoms of leptospirosis are non-specific. There can be high fever, headache, muscle pain (especially calves and lower back) and bloodshot eyes. In severe cases (Weil's disease), failure of vital organs, particularly the liver, kidney, and the coagulation system occurs. The lungs are also affected in severe cases. The disease can be treated with penicillin or other antibiotics. The best effect is achieved if treatment is started within the 1st 4 days of illness. In severe cases, the mortality rate is 5-15 percent. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)*Non-suspect case

JAPANESE ENCEPHALITIS AND OTHER (INDIA): 19 July 2011, With 2 more persons succumbing to encephalitis, the death toll in the viral disease spread in eastern Uttar Pradesh has crossed the 100 mark this year [2011]. This year, 101 patients succumbed to the deadly brain fever out of which 75 were from Gorakhpur Mandal, doctors at the BRD Medical College said [in Gorakhpur] today [19 Jul 2011]. Since 1 Jan [2011], a total of 626 encephalitis patients were admitted to the BRD Medical College and other government hospitals in the region. Out of these, 101 succumbed to the disease, they said. At present, there are 74 patients undergoing treatment in Nehru Hospital of BRD Medical College. Gorakhpur and Kushinagar are the worst affected districts. There were 141 patients from Gorakhpur out of which 24 died. 25 deaths were reported from Kushinagar out of 127 reported cases. The fever is caused by a virus found in pigs and is transferred to humans by mosquito bite. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents)*Non-suspect case

ANTHRAX, HUMAN, BUFFALO (VIET NAM): 21 July 2011, Around 40 people were confirmed to have come in contact with anthrax, a disease commonly spread by animals, over the past 2 months in Tuan Giao [Dien Bien province] and Than Uyen [Lai Chau province] districts of the northern mountainous provinces of Dien Bien and Lai Chau. One 40-year-old slaughterer from Than Uyen District was taken to the local health centre after slaughtering a buffalo suspected to be infected with anthrax. He died one day later. His symptoms included a skin infection of small, raised bumps that itched like insect or spider bites and subsequently developed into fluid-filled blisters. The blisters had black centres of tissue (eschar) with surrounding redness and swelling. [Excellent description. - Mod.MHJ] Nguyen Cong Huan, director of the Lai Chau Province's Health Department said Than Uyen District has been known as an anthrax epidemic area in previous years. Apart from Lai Chau and Dien Bien provinces, Thanh Hoa and Ha Giang provinces once reported cases of anthrax, according to the Ha Noi-based National Hospital of Tropical Diseases. To stop the spread of the epidemic, the department sent authorized teams to spray chemicals and inform local residents of prevention methods, Huan said. "It is hard to destroy the bacterium. Because it must be buried under ground, it takes tens of years to destroy," he [Nguyen

Cong Huan] said. The hospital's deputy head of Emergency Department, Nguyen Trung Cap, said that it is difficult to eradicate the disease in Viet Nam due to its tropical monsoon climate. Negligence of authorised agencies and local residents' lack of knowledge of the dangers of anthrax pose the potential risk of re-outbreak, Cap said. People can die in less than 3 days if they do not receive prompt treatments, he said. Cap said that anthrax can be spread in 3 ways: skin contact with anthrax spores, such as from infected animals or animal products including hair, wool, or hides; inhaling anthrax spores; and eating contaminated, undercooked meat. People are advised to quickly go to the nearest health centre if finding any symptoms of the anthrax. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents)*Non-suspect case

ANTHRAX, HUMAN (BANGLADESH): 16 July 2011, A total of 39 people have been found infected with anthrax in Gangni upazila [sub district] of Meherpur district [Khulna division]. Of the infected, 17 are undergoing treatment at the Gangni Upazila Health Complex while the remaining have already received treatment. Resident physician of the health complex Dr Anwarul Islam told bdnews24.com on Saturday [16 Jul 2011] that an ailing cow was slaughtered at Kallyanpur village of the upazila on 5 Jul 2011 and those who processed the meat and consumed it contracted the infection. Meherpur district civil surgeon Abdus Shahid told bdnews24.com that there is nothing to panic and that they have sufficient medicine in stock for treatment of the disease. The government officially started reporting human infection of anthrax in August 2009. The bacterium can survive in harsh conditions for even centuries in the soil. Cattle get infected while grazing during the rainy season when water brings the bacterium to the surface, experts say. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents)*Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmm.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Zachary Faigen, MSPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: ZFaigen@dhmh.state.md.us

Anikah H. Salim, MPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: ASalim@dhmh.state.md.us